

IN THE CLAIMS:

Claim 1 (Currently Amended): A computer-implemented method for distributed fair scheduling comprising:

~~tagging a packet with a start tag based on a time value;~~  
~~determining calculating a first back-off interval based on at least the start tag of the for a~~  
packet;  
~~transmitting the packet at a time that is based, at least in part, on the first back-off~~  
interval;  
~~detecting a collision;~~  
~~counting from the calculating a second back-off interval based, at least in part, on the first~~  
~~back-off interval to a predetermined transmission time; and~~  
~~transmitting retransmitting the packet at a time that is based, at least in part, on the~~  
second back-off interval upon counting from the back-off interval to the predetermined  
transmission time.

Claim 2 (Currently Amended): The method of claim 1 wherein the first back-off interval is  
based, at least in part, on an arrival time of the packet, ~~further comprising:~~

~~determining whether a collision occurred between the packet and another packet; and~~  
~~upon determining that a collision occurred, determining a new back-off interval, and~~  
~~transmitting the packet upon counting from the new back-off interval to a new~~  
~~predetermined transmission time.~~

Claim 3 (Currently Amended): The method of claim 1; further initially comprising:

receiving the packet at a node; and  
tagging the packet with a start tag. ~~for transmission therefrom.~~

Claim 4 (Currently Amended): The method of ~~claim 1,~~ claim 3 further initially comprising  
resetting a virtual clock.

Claim 5 (Currently Amended): The method of claim 4, further comprising updating the virtual clock, when the packet is transmitted, to the start tag of the packet ~~if upon determining that the~~ start tag exceeds the virtual clock.

Claim 6 (Currently Amended): The method of claim 4, wherein ~~determining a~~ first back-off interval ~~comprises determining the back-off interval~~ is based, at least in part, on also the virtual clock.

Claim 7 (Currently Amended): The method of ~~claim 1~~ claim 3, wherein tagging a packet with a start tag comprises determining a the start tag as greater of a virtual clock and a finish tag of a previous packet.

Claims 8 through 11 (Canceled).

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Claim 12 (Currently Amended): A computerized system comprising:  
a link through which packets are transmitted; and  
a plurality of nodes, each node transmitting a packet through the link at a time based, at least in part, on a first back-off interval; and  
transmitting the packet through the link at a time based, at least in part, on a second back-off interval that is based, at least in part, on the first back-off interval when a collision occurs, when a counting from a back-off interval for the packet reaches a predetermined transmission time,

~~wherein the back-off interval for each packet is based on a start tag of the packet and a virtual clock maintained by the node of the packet;~~

~~wherein the start tag is based on a time value.~~

Claim 13 (Currently Amended): The system of claim 12, wherein each node comprises a controller at which the packet for the node is received for transmission through the link.

Claim 14 (Canceled).

Claim 15 (Currently Amended): A computer comprising:

at least one application generating one or more packets for transmission through a link operatively coupled to the computer; and;

a controller to receive each packet as generated by the at least one application and to transmit each packet through the link at a time based, at least in part, on a first back-off interval;

wherein a packet is transmitted through the link at a time based, at least in part, on a second back-off interval that is based, at least in part, on the first back-off interval when a collision occurs. ~~when a counting from a back-off interval reaches a predetermined transmission time;~~

~~wherein the back-off interval for each packet is based on a start tag of the packet and a virtual clock maintained by the controller;~~

~~wherein the start tag is based on a time value.~~

Claim 16 (Canceled).

Claim 17 (Currently Amended): A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:

~~tagging a packet with a start tag based on a time value;~~

~~determining~~ calculating a first back-off interval based on at least the start tag of the ~~for a~~ packet;

transmitting the packet at a time that is based, at least in part, on the first back-off interval;

detecting a collision;

~~counting from the~~ calculating a second back-off interval based, at least in part, on the first back-off interval to a predetermined transmission time; and

~~transmitting-retransmitting~~ the packet at a time that is based, at least in part, on the second back-off interval, ~~upon counting from the back-off interval to the predetermined transmission time.~~

Claim 18 (Currently Amended): The medium of claim 17, wherein the first back-off interval is based, at least in part, on an arrival time of the packet. ~~method further comprises:~~

~~determining whether a collision occurred between the packet and another packet; and, upon determining that a collision occurred, determining a new back-off interval, and transmitting the packet upon counting from the new back-off interval to a new predetermined transmission time.~~

Claim 19 (Currently Amended): The medium of claim 17, wherein the method further initially comprises:

receiving the packet at a node; and  
tagging the packet with a start tag. ~~for transmission therefrom.~~

Claim 20 (Currently Amended): The medium of ~~claim 17~~ claim 19, wherein the method further ~~initially~~ comprises resetting a virtual clock.

Claim 21 (Currently Amended): The medium of claim 20, wherein the method further comprises updating the virtual clock, when the packet is transmitted, to the start tag of the packet if upon ~~determining that~~ the start tag exceeds the virtual clock.

Claim 22 (Currently Amended): The medium of claim 20, wherein ~~determining a~~ the first back-off interval ~~comprises determining the back-off interval is~~ based, at least in part, on also the virtual clock.

In re Appln. of VAIDYA et al.  
Application No. 09/415,901

Claim 23 (Currently Amended): The medium of ~~claim 17~~claim 19, wherein tagging a packet with a start tag comprises determining a ~~the start tag as~~ greater of a virtual clock and a finish tag of a previous packet.

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Claims 24 through 51 (Canceled).

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